

What is claimed is:

1. A carrier comprising carrier particles, said particles comprising a magnetic core and a resin layer covering said core, wherein said carrier particles have a weight average particle diameter Dw which is 22-32 $\mu\text{m}$  and a number average particle diameter Dp which meets with the following condition:

1 < Dw/Dp < 1.20,

and

(1) wherein the amount of said carrier particles having a particle diameter of less than 20 $\mu\text{m}$  is no more than 7wt% of the total weight of said particles,

(2) wherein the amount of said carrier particles having a particle diameter of less than 36 $\mu\text{m}$  is 90-100wt% of the total weight of said particles, and

(3) wherein the amount of said carrier particles having a particle diameter of less than 44 $\mu\text{m}$  is 98-100wt% of the total weight of said particles.

20 2. The carrier as claimed in Claim 1, wherein said particles have a weight average particle diameter Dw which is 22-30 $\mu\text{m}$ , and wherein the amount of said carrier particles having a particle diameter of less than 20 $\mu\text{m}$  is no more than 5wt%.

25 3. The carrier as claimed in Claim 1, wherein the amount of said carrier particles having a particle diameter of less than 20  $\mu\text{m}$  is no more than 3wt%.

4 4. The carrier as claimed in Claim 1, wherein said carrier particles provide a magnetic moment of from 70 to 150emu/g in an applied magnetic field at 1 KOe.

30 5. The carrier as claimed in Claim 1, wherein said carrier particles have a core of MnMgSr ferrite material.

35 6. The carrier as claimed in Claim 1, wherein said carrier particles have a core of Mn ferrite material.

7. The carrier as claimed in Claim 1, wherein said carrier particles have a core of a magnetite material.

5        8. The carrier as claimed in Claim 1, wherein the bulk density of the magnetic core is 2.35 to 2.50g/cm<sup>3</sup>.

9. The carrier as claimed in Claim 1, wherein the specific electro-resistance denoted by (log R, Ω cm) of the carrier is 12.0 to 14.0.

10      10. The carrier as claimed in Claim 1, wherein a resistance of an inner resin layer is more than that of a surface resin layer.

15      11. A carrier as claimed in claim 10, wherein said resin layer comprises a silicone resin containing aminosilane coupling agent.

12. An electrophotographic developer comprising toner and a carrier according to claim 1.

20      13. An electrophotographic developer as claimed in claim 12, wherein toner charge to mass ratio, when used in such an amount as to provide a covering ratio of 50%, is 15 to 35μc/g.

25      14. An electrophotographic developer as claimed in claim 12, wherein said toner particles have a weight average particle diameter of from 3.0 to 5.0μm.

15. A method for preparing a carrier for an electrophotographic developer, said carrier comprising carrier particles, each carrier particle comprising a magnetic core and a resin layer on the surface of said magnetic core ; said method comprising:

30      (i) classifying a magnetic material of finely pulverized particles, thereby obtaining magnetic core particles having a weight average particle diameter Dw which is 22- 32μm and

          (1) wherein the amount of said carrier particles having a particle diameter of less than 20μm is no more than 7wt% of the total weight of said particles,

35      (2) wherein the amount of said carrier particles having a particle diameter of less than 36μm is less than 90wt% of the total weight of said particles,

          (3) wherein the amount of said carrier particles having a particle diameter of less than 44μm is less than 98wt% of the total weight of said particles, and

          (ii) providing a resinous film onto the magnetic core particles.

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5 16. A method for preparing a carrier for an electrophotographic developer, said carrier comprising carrier particles, each carrier particle comprising a magnetic core and a resin layer on the surface of said magnetic core ; said method comprising:

(i) providing a resinous film onto the magnetic core particles,

(ii) classifying a magnetic core particles of finely pulverized particles, thereby

10 obtaining magnetic core particles having a weight average particle diameter Dw which is 22- 3230 $\mu$ m and a number average particle diameter Dp which meets with the following condition:

15  $1 < Dw/Dp < 1.20$ ,

(1)wherein the amount of said carrier particles having a particle diameter of less than 20 $\mu$ m is no more than 7wt% of the total weight of said particles,

(2)wherein the amount of said carrier particles having a particle diameter of less than 36 $\mu$ m is less than 90wt% of the total weight of said particles,

(3)wherein the amount of said carrier particles having a particle diameter of less than 44 $\mu$ m is less than 98wt% of the total weight of said particles

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17. A method as claimed in Claim 15, wherein classifying is accomplished by a vibration sieve equipped with an ultrasonic wave-generator.

25 18. A method as claimed in Claim 15, further comprising classifying the particles having a resinous film thereon with a vibration sieve equipped with an ultrasonic wave-generator.

30 19. A method as claimed in Claim 17 , wherein the vibration sieve is equipped with an ultrasonic wave-generator and a resonator ring to transfer ultrasonic waves generated by the ultrasonic wave-generator to the vibration sieve.

35 20. A method as claimed in Claim 18, wherein the vibration sieve is equipped with an ultrasonic wave-generator and a resonator ring to transfer ultrasonic waves generated by the ultrasonic wave-generator to the vibration sieve.

21. An image forming method, comprising developing an image with the developer of Claim 12.

40 22. A process cartridge which is freely attachable to an electrophotographic image forming apparatus and detachable therefrom, wherein said process cartridge comprises

5 dry toner and a carrier according to claim 1.